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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,245	09/03/2004	Lidvar Budal	LUKP:114US	5244

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EXAMINER
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PANG, ROGER L

ART UNIT	PAPER NUMBER
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3681

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/711,245

Applicant(s)

BUDAL ET AL.

Examiner

Roger L. Pang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 9-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 14-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1-24-05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

The following action is in response to the election filed for application 10/711,245 on September 28, 2005.

#### ***Election/Restrictions***

Claims 9-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on September 28, 2005.

#### ***Priority***

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on March 7, 2002. It is noted, however, that applicant has not filed a certified copy of the German application as required by 35 U.S.C. 119(b).

The PCT, to which the current application is a continuation of, is also not in the file.

#### ***Drawings***

The drawings are objected to because in Figure 6, it is believed that the last 2 boxes should be --Pulling Downshift-- and --Pushing Downshift-- as opposed to "Pulling Upshift" and "Pushing Upshift," which have already been tested fro in the previous 2 boxes. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as

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“amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8, and 14-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There are multiple errors within all of the claims (and within the non-elected claims).

Examples are as follows:

In Claim 1:

on line 2, “the engine” lacks antecedent basis.

on line 4, “the slip limit” and “the engine torque” lack antecedent basis.

on line 5, “the type of shifting” lacks antecedent basis.

on line 5, “the driver” lacks antecedent basis.

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In Claim 3:

on line 1, “the torque” lacks antecedent basis.

In Claim 7:

on lines 1-2, applicant refers to “ a clutch is disengaged and when a clutch slipping or gripping clutch.” These limitations do not make reference to the previously disclosed respective input shaft clutches. It is suggested that applicant amend the limitations to reflect this. A suggestion would be to label the clutch in claim 1 “an input clutch,” and then refer to either of the two clutches in the remaining claims as “one input clutch” and “the other input clutch.”

In Claim 8:

on lines 2-3, “the engine speed” and “the speed of the active transmission input shaft” lack antecedent basis.

In Claim 14:

none of the variables in this equation have been disclosed.

In Claim 15:

on line 1, the limitation of “the external vehicle torque” lacks antecedent basis.

In Claim 16:

on line 2, it is unclear which of the two clutches applicant is referencing.

In Claim 17:

on line 2, applicant has labeled two different clutches with the same limitation of “the clutch.”

In Claim 18:

again, none of the variables in the equation have been disclosed.

In Claims 19-22:

There are many instances of lacking antecedent basis. Also, applicant re-labels the input clutches as “the old clutch” and “the new clutch.” Applicant must amend claims 1, 7, 16-17 and 19-22 to have consistent references to the two input clutches.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Zhang.

With regard to claim 1, Zhang teaches a method for carrying out gear shifting in a twin-clutch transmission having at least two transmission input shafts M1/M2, each of which is coupled via a clutch 16/17 to the engine, wherein after recognition of a desire to shift 2020, the clutch assigned to the transmission input shaft that is transmitting torque is disengaged up to a slip limit (Col. 7) and an engine torque  $M_b$  is driven as a function of a type of shifting (Col. 7; Fig. 3) in order to achieve a vehicle acceleration  $M_{ab}$  desired by a driver. With regard to claim 2, Zhang teaches the method, wherein an additional torque  $\Delta M_m$  is used to achieve the vehicle acceleration desired by the driver. With regard to claim 7, Zhang teaches the method, wherein the type of

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shifting is determined shortly before the beginning of the shift (Fig. 3). With regard to claim 8, Zhang teaches the method, wherein while one of said input clutches 17 is disengaged, the other input clutch 16, which slipping or gripping, is brought into the slipping state by a decrease of the gripping or slipping input clutch that is transmitting the torque, it being decided at the beginning of the slip phase of the clutch whether the drive train is under pulling load or pushing load in which a check is made of when the slip is positive or negative on the input clutch that is transmitting torque (Fig. 2). With regard to claim 8, Zhang teaches the method, wherein when there is a positive slip on the clutch that is transmitting torque, if an engine speed is somewhat larger than a speed of the transmission input shaft that is active, a pulling load is present, and when there is a negative slip, if the engine speed is somewhat smaller than the speed of the active transmission input shaft, a pushing load is present (Col. 5).

### *Allowable Subject Matter*

Claims 3-5, and 14-22 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hrovat, Goeddel, Ibamoto, Bullmer, Loeffler, Vukovich, and Pels have been cited to show similar transmissions and transmission controls.

### FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. The central facsimile number is (571) 273-8300. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.



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Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (571) 273-8300) on \_\_\_\_\_ (Date)

Typed or printed name of person signing this certificate:

\_\_\_\_\_  
\_\_\_\_\_


(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger L. Pang whose telephone number is 571-272-7096. The examiner can normally be reached on 5:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Roger L. Pang  
Primary Examiner  
Art Unit 3681

October 27, 2005